

TITLE OF INVENTION: FISHING TACKLE BOX

INVENTORS: FERGUSON, JAMES

CROSS REFERENCE TO RELATED APPLICATIONS

Not Applicable.

5 STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH

Not Applicable.

REFERENCE TO "MICROFICHE APPENDIX"

Not Applicable.

BACKGROUND OF THE INVENTION

10 The present Invention is directed towards an apparatus for segregating and storing items for selective presentment, and more particularly directed to a compartmentalized utility box which is still more particularly suited for the storage of fishing lure, baits, and related items of fishing tackle.

Mankind's long engagement in the art of fishing has resulted in a myriad
15 assortment of lure, baits, weights, sinkers, floats, hooks, and other associated equipment. Ancillary to the development of this wide variety of equipment, many different apparatus have been designed for its storage. Most prior systems concentrate on providing compartmented storage for lures and baits such that they may be individually stores and retrieved without a resulting entanglement of various components. However, prior
20 efforts at conventional tackle boxes often lack proper arrangement of the fishing lure and components to facilitate rapid selection of a particular component from the box and fail to provide accommodation for a large variety of lures, lines, hooks, and similar equipment. While entanglement of the various lures has also been an inconvenience of conventional

tackle boxes, the excessive volume occupied by such boxes and the necessary excessive space requirement for opening and closing such boxes have also been serious shortcomings of prior efforts at creating efficient tackle storage.

Additionally, many previously developed tackle boxes open in such a manner as
5 to make the box unstable, particularly when more equipment is stored in the upper racks of such traditional boxes. Also, traditional tackle boxes are generally designed to expose all or a majority of the stored components when opened, thereby exposing all of them to the risk of loss in the event of an accident. These conventional designs further provide no buoyancy when dropped into water, thereby allowing little chance of recovering the box
10 or its contents in the event of such an accident. Prior designs which have attempted to remedy these problems have failed to adequately address the needs of compactness and additionally have been complex designs which are difficult to manufacture.

A number of prior designs for tackle storage boxes can be found in the literature, including Morcom, U.S. Pat. 3,947,991; Singer, U.S. Pat. 4,023,304; Morcom, U.S. Pat.
15 4,033,066; Price et al., U.S. Pat. 4,366,641; Alsobrook et al., U.S. Pat. 4,691,469; Lanius et al., U.S. Pat. 4,729,474; Graves et al., U.S. Pat. 4,756,412; Richards, U.S. Pat. 4,782,619; Bunten, U.S. Pat. 4,958,730; Zimbardi et al., U.S. Pat. 5,054,669; Borawski, U.S. Pat. 5,095,645; Woolworth et al., U.S. Pat. 5,205,429; Plost, U.S. Pat. 5,311,698; Zaffina, U.S. Pat. 5,337,892; Hodges, U.S. Pat. 5,475,943; Edgar, U.S. Pat. 5,517,783;
20 Lisch, U.S. Pat. 5,542,206; Newberg, U.S. Pat. 5,584,138; Prochnow, U.S. Pat. 5,593,061; Maraman, U.S. Pat. 5,605,005; Suddeth, U.S. Pat. 5,606,820; McGuff et al., U.S. Pat. 5,611,170; Pizzolo et al., U.S. Pat. 5,636,469; Whiteacre, U.S. Pat. 5,704,158; Talbot, U.S. Pat. 5,799,787; Yunger et al., U.S. Pat. 5,823,337; Blackburn, U.S. Pat.

5,934,010; Raff, U.S. Pat. 5,996,272; and Moffett et al., U.S. Pat 6,134,825. Each of these prior designs defines an apparatus that suffers from one or more of the foregoing problems; the designs which allow for greater compartmentalization or a system for preventing entanglement of lure are generally complex and bulky devices of limited portability, and the designs which are more compact generally have less functionality in terms of providing individual compartments for lures and other equipment.

A need therefore exists for a compact tackle box capable of accommodating a reasonably large number of fishing lures and components which are readily accessible to the user. The box must furthermore be designed in such a way as to provide segregation of the stored components to eliminate the risk of entanglement while needing a minimum of space to open. The box should be stable in both its opened and closed position and should utilize a minimum number of components to simplify manufacture, and should preferably be designed in such a manner that the box is naturally somewhat buoyant when placed in water.

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SUMMARY OF THE INVENTION

In accordance with the present invention, a compartmentalized container includes a one-piece tube of octagonal cross-section having an interior partitioning network of dividers which create a number of compartments internal to the tube. The tube is open at
5 either end and is symmetrical both around the central axis of the tube as well as about a plane passing through the midpoint of that axis. Additionally, the tube's interior partitioning network is divided into two halves by a center partition along the plane passing through the midpoint of the central axis of the tube. The interior partitioning network is arranged such that a plurality of compartments are provided along the
10 circumference of the tube, which compartments also define a larger central compartment in which a plurality of horizontal trays are disposed in a superposed stacked relation. Either end of the tube is covered with a plate of identical cross section to that of the tube. A handle is disposed on one exterior surface of the tube, with the plates connected to the tube along the edge of the surface opposite that on which the handle is disposed. The
15 means of connecting the plates to the tube may vary but allow the plate to be rotated, thereby opening the resulting structure. Each plate further has a raised lip on the side adjoining the end of the tube such that when the plate is positioned in the closed position, the resulting structure is sealed and watertight. Also, the bottom surface of the tube includes feet for stabilizing the structure in the upright position.

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DESCRIPTION OF THE DRAWINGS

Fig. 1 is an oblique view of the invention in its fully closed position.

Fig. 2 is an oblique view of the invention with the end plates open and further
5 showing the horizontal trays.

Fig. 3 is a sectional view along the long axis of the invention showing the internal partitioning network, including the central divider.

Fig. 4 is a sectional end view of the invention showing the internal partitioning network.

10 Fig. 5 is an end view of the invention showing the pattern of the internal partitioning network.

Fig. 6 is an oblique view of a horizontal tray as removed from the central area of the invention.

Fig. 7 is an oblique view of the invention with ends open and the horizontal trays
15 removed.

CATALOG OF ELEMENTS

	10	Tackle utility box
	20	Main tube
5	22	Handle
	30	End plates
	32	End plate connecting hinge
	34	End plate closure
	36	End plate spool hanger
10	38	End plate sealing lip
	100	Interior partitioning network
	110	Central divider
	120	Horizontal trays
	130	Stabilizing feet
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DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to Fig. 1, a tackle utility box 10 is provided which includes a main tube 20 and two end plates 30. Each of the end plates 30 is connected to the main tube 20 by means of the end plate connecting hinge 32. The end plates 30 are planar structures having a geometric shape identical to the cross-section of the main tube 20, preferably defining an octagonal shape. It will be understood that the end plate connecting hinge 32 may comprise any of a variety of hinge means ranging from a traditional leaf hinge to a simple textile strip permanently affixed to the exterior of the main tube 20 and end plate 30 along the bottom edge of each. A handle 22 is disposed on the top surface of the main tube 20. Also, on the bottom surface of the main tube 20 are mounted stabilizing feet 130, which are not pictured in the drawings but which will be understood by those of ordinary skill in the art to be one of several different methods of providing stabilizing, positive traction between the bottom of the main tube 20 and whatever surface the apparatus is resting upon. The end plates 30 are held in the closed position by the end plate closures 34, which may comprise a variety of closure means including traditional clasp-type closures but which, for simplicity and ease of manufacture, will preferably comprise a two-piece textile hook-and-eye closure, with one piece permanently affixed to the top surface of the main tube 20. In the preferred embodiment, the other piece of the closure has one end permanently affixed to the end plate 30 such that, in the closed position, the other end overlaps the first piece permanently affixed to the main tube 20. Such a closure provides a simple, reliable, and easily operated means for opening or securing the tackle utility box 10. Fig. 2 shows this disposition of the end plate closures 34 and further show the end plates 30 in their open positions, attached to the main tube 20

by the end plate connecting hinges 32. Although not shown in the drawings, it will be readily understood by those in of ordinary skill in the art that along the side of each of the end plates 30 facing the ends of the main tube 20, a raised end plate sealing lip 38 exists which provides a watertight seal when the end plates 30 are in their closed positions.

5 Fig. 2 further offers a view of the interior partitioning network 100, which includes a number of planar partitions running parallel to the center axis of the main tube 20 arranged symmetrically around the circumference of the main tube 20 and further defining a central square cavity. The central square cavity contains a plurality of identical horizontal trays 120 which are further divided into a number of compartments.

10 In the preferred embodiment, two identical horizontal trays 120 are situated in superposed arrangement within the central square cavity, in which the trays may slide freely. Referring to Fig. 6, the horizontal trays 120 may be seen to be relatively simple, open trays divided by partitions into a plurality of compartments. Fig. 3 shows the interior partitioning network 100 in sectional detail, further showing the central divider

15 110 which is essentially a plate passing through a plane bisecting the main tube 20 into two identical ends. Fig. 3 additionally demonstrates that each end of the main tube 20 contains a pair of the identical horizontal trays 120.

Fig. 4 shows the trays in their retracted position within the central square cavity of one end of the main tube 20 and shows further detail of the end plate 30 and end plate

20 closure 34. On the exterior surface of the end plate 30, Fig. 4 shows the placement of an end plate spool hanger 36, which is a essentially a rod with a short perpendicular bend at one end and attached to the center of the end plate 30 at the other. The end plate spool

hanger 36 may be used to securely hold a spool of fishing line or twine which otherwise would not fit within a compartment in the interior of the tackle utility box 10.

It will be understood that the main tube 20, handle 22, and interior partitioning network 100 (with its central divider 110) are preferably formed as a single piece of molded plastic. Formation as a single piece yields substantial structural rigidity and strength, and furthermore results in an extraordinarily simple manufacturing process, with the insertion of the horizontal trays 120 and attachment of the end plate hinges 32 and end plate closures 34 remaining as the only steps needed to complete construction of the preferred embodiment. It is further readily apparent that by this method, a structure is formed which has no possibility for the contents of any given compartment to be communicated to any other compartment. In the normal manner of use, only one end of the tackle utility box 10 will be open at any given time; it is therefore also readily apparent that the closed end(s) of structure define(s) a closed air space which will provide buoyancy to the overall apparatus in the event of an accidental immersion in water.

Although the present invention has been described with reference to certain preferred versions thereof, other versions are possible. Therefore, the spirit and scope of the appended claims should not be limited to the description of the preferred versions contained herein.

CLAIMS

1. A fishing tackle utility box comprising:
 - a. a main tubular body having an interior and exterior, and open at each end of said tubular body;

b. a center partition bisecting said main tubular body between said ends and dividing the internal volume of said main tubular body into two portions;

c. a network of partitions arranged around the interior circumference of said main tubular body, said network of partitions dividing each of said portions of said main tubular body into a plurality of compartments;

d. a handle connected to one exterior surface of said tube;

e. two end plates, with each of said end plates connected to and covering one of said ends of said main tubular body by connecting hinge means and secured in place by closure means, with each of said end plates further comprising a planar member having a geometric shape identical to the cross-sectional shape of said main tubular body.

2. The fishing tackle utility box of claim 1, wherein said cross-sectional shape of said main tubular body is an octagon.

3. The fishing tackle utility box of claim 2, wherein said network of partitions further defines a central cavity within each of said portions of said main tubular body, and further comprising a plurality of horizontal trays disposed in a superposed stacked relation within said central cavity, wherein the end walls said trays close the end opening of said central cavity when said plurality of horizontal trays are inserted fully into said central cavity and wherein each of said horizontal trays may be inserted into or withdrawn from said central cavity.

4. The fishing tackle utility box of claim 2, wherein said closure means further comprise a two-piece, hook-and-eye textile, with the first piece of said textile permanently disposed on the exterior of said main tubular body at the end of said main tubular body, and with one end of the second piece of said textile permanently disposed

on the exterior surface of said end plate at a point corresponding to the position of said first piece of said textile, wherein the other end of said second piece of said textile overlapping said first piece of said textile.

5. The fishing tackle utility box of claim 3, wherein said closure means further
5 comprise a two-piece, hook-and-eye textile, with the first piece of said textile permanently disposed on the exterior of said main tubular body at the end of said main tubular body, and with one end of the second piece of said textile permanently disposed on the exterior surface of said end plate at a point corresponding to the position of said first piece of said textile, wherein the other end of said second piece of said textile
10 overlapping said first piece of said textile.

ABSTRACT

A compact fishing tackle utility box is disclosed wherein a tubular body of octagonal cross-section is provided. Along the interior circumference of the tubular body, a partitioning network divides the interior space of the tubular body into a plurality
15 of compartments, including a central cavity of rectangular cross-section, within which a plurality of horizontal trays are arranged in superposed fashion. The partitioning network further includes a central divider placed substantially at the midpoint between the two ends of the tube. Finally, two hinged end plates are provided, one at each end of the tubular body, to provide closures to the fishing tackle utility box, and a handle is attached
20 to the upper exterior surface of the tubular body.